

SERIAL 03225 - S TELECOMMUNICATIONS CABLING SERVICES (NIGP 96218)

CONTRACT PERIOD THROUGH MARCH 31, 2010

TO: All Departments

FROM: Department of Materials Management

SUBJECT: Contract for **TELECOMMUNICATIONS CABLING SERVICES (NIGP 96218)**

Attached to this letter is published an effective purchasing contract for products and/or services to be supplied to Maricopa County activities as awarded by Maricopa County on **March 03, 2004**.

All purchases of products and/or services listed on the attached pages of this letter are to be obtained from the vendor holding the contract. Individuals are responsible to the vendor for purchases made outside of contracts. The contract period is indicated above.

Wes Baysinger, Director
Materials Management

CS/ks
Attach

Copy to: Clerk of the Board
 Debbie Overton, Sheriffs Office
 Tom Crosby, Telecommunications
 Sharon Tohtsoni, Materials Management

(Please remove Serial 98168-SC from your contract notebooks)

SPECIFICATIONS ON INVITATION FOR BID FOR: TELECOMMUNICATIONS CABLING SERVICES

1.0 **INTENT:**

The Telecommunications Department of Maricopa County is seeking a qualified vendor to provide cable installation, termination services, (including parts and supplies) and assist with Moves, Adds & Changes (MAC) for the County's phone systems. These services will include all cabling required to provide voice and data service to all the various County Agencies. Maricopa County reserves the right to supply the parts and supplies and to have the selected vendor supply labor only for these services.

2.0 **TECHNICAL SPECIFICATIONS:**

2.1 The successful vendors shall be capable of providing the following services:

- 2.1.1 Installation and termination of CAT 3, 5e, and CAT 6 for voice applications.
- 2.1.2 Installation and termination of category 6 cable for data applications or new industry standard determined for use by the County during the term of the Contract.
- 2.1.3 Installation of ¾" plywood, raceways and cable racks as required.
- 2.1.4 Installation and termination of both copper and fiber optic riser cable to interconnect floors, using existing accesses or by installing conduit and/or core drilling as needed.
- 2.1.5 Installation and termination of copper and fiber optic cable to interconnect buildings, using existing accesses or by providing buried or aerial cable at the County's options.
- 2.1.6 Installation and relocation of telephone terminal devices (MAC).
- 2.1.7 Troubleshoot and repair telephone terminal devices.
- 2.1.8 Installation, maintenance and repair of video (including cameras) and CATV cable equipment.
- 2.1.9 Required Man Hole work environment as necessary.
- 2.1.10 Troubleshoot and repair existing cable facilities.

2.2 The vendor will be required to provide all of these services with their own staff or through sub-contractors.

2.3 Telecommunications will provide the vendor with adequate office and warehouse space at our facility. Telecommunications will also provide a phone, FAX, Email service, and a workstation with access to County and/or MCSO work order systems. The vendor will provide a credit to the County for the cost of any long distance charges for the phone and FAX lines assigned to them. MCSO will not furnish space to their vendor, and general government will not furnish space to that vendor, if different contractor is awarded general government.

2.4 Access to County Facilities

2.4.1 The vendor will have access to most County facilities during normal business hours, (Monday - Friday 8:00 a.m. to 5:00 p.m). In buildings where access is restricted, County personnel will make the necessary arrangements for vendor admittance. Vendors may be required to have their employees work a flexible schedule in order that work can be done evenings and weekends without incurring overtime charges. **No overtime charges shall accrue unless express written consent is given by the County prior to the occurrence of such charges.**

2.4.2 Each of the vendor's employees must display a County ID when working in County facilities. There will be two County ID's issued. One of these ID's is issued by the Maricopa County Sheriff's office for access to the Sheriff's facilities and requires a background check, (see **Attachment E**). The other ID is issued by The Superior Court of Maricopa County and allows card key access to other County Facilities. The requirements that must be met to receive an ID from the Superior Court are in **Attachment E**. Before any employee commences work at a County facility they must meet the requirements of both of these agencies. In addition to the above requirements the Maricopa County Attorney's Office requires successful approval of a background

check administered by their office. It will be the responsibility of the vendor to notify potential employees of these requirements and provide the information to the appropriate agencies to secure the ID's for the employee. It will also be the vendor's responsibility to notify Telecommunications, the Sheriff's office and Superior Courts security immediately upon termination of any employee who has a County ID. Immediately, the vendor must return all County issued ID's to the agencies when an employee is terminated. Telecommunications will provide the Vendor with keys and/or card key access to IDF's and/or Telecommunications equipment rooms. It will be the Vendors responsibility to insure that any of these keys that are issued to an employee are immediately returned upon termination of the employee or termination of this contract. If the Vendor does not return all the keys that have been issued the vendor will reimburse the County for all expenses to re-key and/or replace the locks.

2.5 Vendor Qualifications - Base 1, General Government

- 2.5.1 Provide reference for a specific contract where you installed 1000 stations drops with a minimum of 2 cables per station (or equivalent).
- 2.5.2 The contractor shall have a minimum of three (3) years' equivalent experience. The contractor shall have a Quality Assurance person to check workmanship with a County employee.
- 2.5.3 The Cable Contractor will assign a full time Project Manager. The Project Manager will have the responsibility of meeting all quality objectives as defined in the installation package. The Project Manager will attend all scheduled meetings as requested and will coordinate all work through the County and/or Sheriff's Office. Upon completion of specific tasks throughout the project, the Project Manager will be required to sign off before any additional work may be performed.
- 2.5.4 Upon completion of the installation, there shall be a walk-through with the Cable Contractor Project Manager, and a representative of the County and/or Sheriff's Office Telecommunications Division. This walk-through is for the purpose of inspection and acceptance by the County and/or Sheriff's Office. In the event of any discrepancies between the installation criteria and the delivered product, a punch list will be developed and the corrections shall be made immediately after walk-through. After the project walk-through has been completed and any discrepancies corrected, the customer representative will be asked to sign a project acceptance form.
- 2.5.5 The following types of certifications are required for award. **INCLUDE IN YOUR BID A LIST OF EMPLOYEES (WITH THEIR RESPECTIVE RESUMES) THAT HAVE SUCH CERTIFICATIONS AND WILL BE WORKING ON COUNTY PROJECTS.**

Fiber Optic Installation, test and repair (**Siemons**, AT&T etc.)
 Category 6 installation (**Siemons**, Ortronics etc.)
 Appropriate Blown Fiber Optic Certification (may be subcontracted)
 OCSA Certification for outside underground manhole work
 OTDR operation
 Toshiba PBX (**currently DK 424 & 40I reserve rights to change in future**)
 Inter-Tel PBX (**Currently Premier & reserve rights to change in future**)
 Indoor and Outdoor Fiber Optics installation and termination
 BISCI Cert for tech 1 and 2 and Tech Level

2.6 Vendor Qualifications - Base 2, Sheriff's Office

- 2.6.1 Provide specific references for contracts for which you installed 500 SYSTIMAX SCS Level 2061, plenum stations drop with a minimum of two (2) cables per station (or equivalent).

- 2.6.2 The contractor shall have a minimum of three (3) years' equivalent experience. The contractor shall have a Quality Assurance person to check workmanship with a MCSO and/or County Telecommunications employee.
- 2.6.3 The Cable Contractor shall assign a full time Project Manager for each project. The Project Manager will have the responsibility of meeting all quality objectives as defined in the installation package. The Project Manager will attend all scheduled meetings as requested and will coordinate all work through the County and/or Sheriff's Office. Upon completion of specific tasks throughout the project, the Project Manager will be required to sign off before any additional work may be performed.
- 2.6.4 Upon completion of the installation, there shall be a walk-through with the Cable Contractor Project Manager, and a representative of the County and/or Sheriff's Office Telecommunications Division. This walk-through is for the purpose of inspection and acceptance by the County and/or Sheriff's Office. In the event of any discrepancies between the installation criteria and the delivered product, a punch list shall be developed and the corrections will be made promptly. After the project walk-through has been completed and any discrepancies corrected, the customer representative will be asked to sign a project acceptance form.
- 2.6.5 The following types of certifications are required for award consideration. **INCLUDE IN YOUR PROPOSAL A LIST OF THOSE EMPLOYEES (WITH THEIR RESPECTIVE RESUMES) THAT HAVE SUCH CERTIFICATIONS AND WILL BE WORKING ON COUNTY PROJECTS.**

SYSTIMAX SCS
Fiber Optic Installation/repair (Siemens, AT&T etc.)
Category 5 installation (Siemens, Ortronics etc.)
OTDR operation
Toshiba PBX
Inter-Tel PBX
AVAYA (or equivalent) fiber and copper
Indoor and outdoor Fiber Optic installation and termination
Fiber Optic test and repair
BICSI Certification- Technician 1, 2 and Technician Level

2.7 General Requirements **(MANDATORY)**

- 2.7.1 The Contractor assumes full responsibility for the safety and conduct of his employees. The County reserves the right to have any Contractor's employee, that conducts themselves in an unsafe or unprofessional manner, removed from County property.
- 2.7.2 Within fourteen (14) days of award of this contract the vendor must be prepared to receive work requests and complete those requests as specified.
- 2.7.3 Telecommunications or MCSO will provide the Vendor with work orders or repair orders for all work to be done. These work orders will include the location, floor plans or drawings, type and number of cables to be installed.
- 2.7.4 The vendor will meet all the following requirements:
- 2.7.4.1 Materials will be supplied at the contractor's cost-plus bid markup. The vendor must submit a copy of the itemized invoice from the supplier of the materials. Submit an itemized invoice of labor and material for each work order completed. The invoice must include all materials used regardless of source. Maricopa County reserves the right to supply all materials and have the contractor supply labor only.
- 2.7.4.2 All invoices must include the MCSO and/or County's Work Order number and be submitted on a weekly basis. All invoices must include building

name and the name of the division where the work was completed. Only one invoice number can be used for each project. Several individual service requests can be generated for a project under the one invoice control number.

- 2.7.4.3 Provide sufficient test equipment to test all cable installations. This shall include but is not limited to: OTDR **both wave lengths bi-directional**, Copper test equipment up to 250 MHz and category 6 compliant with the TIA and EIA specification.
- 2.7.4.4 Test and verify continuity of all cable installation compliant with TIA/EIA specifications (All conductors).
- 2.7.4.5 Contractor will not be allowed to bill for travel time to and from the Southeast Regional Facility, Downtown campus with extended facilities and the Durango Campus. **A maximum of one-hour each way may be billed for travel to other County facilities.**
- 2.7.4.6 Provide documentation verifying category 6 compliance for all category 6 cable installed. Testing will be from outlet to patch panel. Provide documentation on CD verifying CAT 5e and CAT 6 compliance for all cable installed. Testing will be from outlet to patch panel or 110 block. Provide documentation on CD indicating test results for all fiber optical installation. Test must include color code and number of fiber strand. The OTDR shall include the location of testing and the location of the far end. Test must include terminating connectors.
- 2.7.4.7 Provide documentation indicating test results for all optical fiber installation. Test must include terminating connectors.
- 2.7.4.8 Trouble shooting, diagnostic routines and quality assurance on existing cables.
- 2.7.4.9 Complete all critical repair calls within four (4) hours and non-critical calls within eight (8) hours.
- 2.7.4.10 An estimate of all costs involved for station cable installations not included in the standard cost model.
- 2.7.4.11 Provide all necessary tools, test equipment and vehicles to complete the assigned work.
- 2.7.4.12 Workmanship and operation will be guaranteed for all work performed.
- 2.7.4.13 Return floor plans or drawings to County Telecommunications and/or MCSO Telecommunications upon completion of the job. All work will be labeled and recorded in accordance with County and MCSO procedures. Update drawing, make a copy and mount in the IDF or Telecommunications closet. Provide the original to County or MCSO Telecommunications upon the completion of the job with labeling for all jacks installed.
- 2.7.4.14 All areas of work shall be kept clean to prevent accidents and all unused materials, debris, and trash shall be removed at the end of each day and when the work is completed.
- 2.7.4.15 Cable installations shall not be exposed unless approved by the County.
- 2.7.4.16 Complete all cable installations for 1 to 16 workstations within four (4) working days of receipt of order.

- 2.7.4.17 Complete all cable installations for 17 to 30 workstations within eight (8) working days of receipt of order.
- 2.7.4.18 Complete all projects (more than 30 workstations and new facilities) within the time specified on the work order
- 2.7.4.19 Provide a “Not To Exceed” written estimate for orders that include riser or campus cabling or station cabling in areas with obstructed access.
- 2.7.4.20 Provide a “Not To Exceed” written estimate for installation in new County facilities. These installations will include all the work necessary to provide the cable infrastructure for both voice and data.
- 2.7.4.21 Designate a project site manager for the contract who shall have combination of a minimum of ten (10) years in field and management experience. This person will be full time and assigned **-(dedicated, full time on-site, 40 hours per week)** to Maricopa County. The County may accept fewer years of experience. This decision will be based on skill levels and other pertinent issues.
 - a) This person will provide a single point of contact for all services provided to the County.
 - b) This person’s résumé must be provided to the County as part of the bid package.
 - c) Day-to-Day operations and coordination of work orders.
 - d) Resolution of any problems with Maricopa County.
 - e) The County will not accept separate or additional charges for the project management function.
- 2.7.4.22 Each calendar quarter the vendor will provide to the County a status report this report will include:
 - a) Statistics indicating adherence to time frames for all work completed for the quarter.
 - b) The number and location of jobs, average time to complete jobs, average man-hours spent per job.
 - c) Review of exceptions to typical installations by location.
 - d) Any exceptions to normal work requirements will also be addressed in this report.
 - e) Customer satisfaction surveys from each agency for which work was done during the quarter.
 - f) Any other information deemed appropriate by the County.
- 2.7.4.23 Maricopa County has the right of approval for all contractor’s employees.
- 2.7.4.24 Prior to commencement of Contract Maricopa County requires that the Site Supervisor and at a minimum two lead technicians be on site 30-days prior to start of contract.
- 2.7.4.25 All contractor’s works crew shall have at least one (1) full time employee with at least two (2) years experience.
- 2.7.4.26 The contractor’s Project Manager shall have a minimum of five (5) to seven (7) years experience.

2.8 Penalties

- 2.8.1 **For any repair order that exceeds the eight (8) hour completion time, the vendor will apply a discount of 5%, of the total invoice for the repair order, per hour over the eight-hour completion time.**

- 2.8.2 For any work order exceeding the completion time frames specified in **Section 2.0, subsections 2.7.4.17 – 2.7.4.19** the vendor will apply a discount of 5%, of the total invoice for the work order, per day over the allowable number of days.

2.9 Warranty

- 2.9.1 The vendor must warranty all work completed under this contract for a two (2) year period from the time of acceptance (General Government). The vendor must warranty all work completed under this contract for a fifteen (15) year period from the time of acceptance (Sheriffs Office). That warranty must include the following:

- 2.9.1.1 The vendor will repair and retest any cable installation that does not meet specifications.
- 2.9.1.2 At the County's option the vendor will retest all cables installed as a part of the same work order if any cable installation does not meet specifications.
- 2.9.1.3 The vendor will be accessed liquidated damages in the amount of \$150/day for cables that do not meet specifications. This time will be from the day of notification, including that day.

2.10 Base 1 Requirements

2.10.1 General Government

2.10.1.1 Typical Cable Installation Requirements:

(Prices to be provided on Base # 1 Price sheet – General Government) All parts and supplies will be at contractors cost plus bid markup. Contractor must submit an itemized parts invoice for all parts and supplies used showing their cost.

The County has installed 1000 to 1200 station cables, completed 1 or 2 trenching/conduit orders and cabled 6 to 8 new facilities over the past year. Approximately the same quantities may be expected annually.

2.10.1.2 Station cable:

New voice and data cable to single outlet. Requirements: Installation of 2 Category 3, 4 pair cables terminated in jacks at Work Station and terminated on either 66 or 110 type blocks in IDF/MDF AND installation of 2 Category 6, 4 pair cables terminated in jacks at the Work Station and terminated on Category 6 patch panels in IDF/MDF. This will also include installation of blocks and patch panels in the IDF/MDF when required.

2.10.1.3 New data cable to single outlet. Requirements:

Installation of 2 Category 6, 4 pair cables terminated in jacks at the Work Station and terminated on Category 6 patch panels in IDF/MDF. This will also include installation of patch panels in the IDF/MDF when required

2.10.1.4 New data cable and termination of existing voice cable in single outlet. Requirements:

Termination of 2 existing Category 3, 4 pair cables in new jacks at Work Station AND installation of 2 Category 6, 4 pair cables terminated in jacks at the Work Station and terminated on Category 6 patch panels in IDF/MDF. This will also include installation of patch panels in the IDF/MDF when required

2.10.1.5 Riser cable Requirements:

Up to 200 Pair copper cable.
24 strand fiber optic cable.

2.10.1.6 Campus cable Requirements:

200 Pair copper cable.
24 strand fiber optic cable or 18 strands blown single or multi-mode cable.

2.10.1.7 All station cable will be installed per the specifications in **ATTACHMENT F** (The parts list and procedures identified in ATTACHMENT F will be the installation). Station cable installation must be quoted, on a per unit basis, for each of the three options listed in the standard cost model. We will use this standard cost model to estimate typical cable installations. Typical station cable installation will be in locations with unobstructed access from closet to workstation. Any location where the cable can be placed above a drop ceiling, with the jack cut into sheet rock walls or modular furniture with power poles, will be considered to have unobstructed access.

2.10.2 Other Installation Requirements:

In addition to the specific cable installation requirements the vendor must also provide the following:

2.10.2.1 Outside Plant

- 2.10.2.1.1 Innerduct for Fiber Optic cable
- 2.10.2.1.2 Splicing of copper cable
- 2.10.2.1.3 Direct burial cable both copper and fiber optic
- 2.10.2.1.4 Aerial cable both copper and fiber optic
- 2.10.2.1.5 Conduit for copper and fiber installations
- 2.10.2.1.6 Trenching for buried cable
- 2.10.2.1.7 Splice enclosures for copper and fiber optic cables
- 2.10.2.1.8 Approved 7 or 19 cell blown fiber conduit
- 2.10.2.1.9 Entrance cable protectors

2.10.2.2 Inside Plant

- 2.10.2.2.1 Modular cords and connectors (4 wire, 6 wire & 8 wire phone cords and category 6 patch cords)
- 2.10.2.2.2 Flat (under carpet) cable
- 2.10.2.2.3 Installation of Single Mode 8.3/125 μ m Fiber Optic cable
- 2.10.2.2.4 Installation of Multi Mode 62.5/125 μ m Fiber Optic cable
- 2.10.2.2.5 Installation of Multi Mode 50/124 μ m Fiber Optic cable
- 2.10.2.2.6 Replace fiber optic mechanical splices and connectors as required
- 2.10.2.2.7 Fiber Optic ST UV cure connectors
- 2.10.2.2.8 Distribution frames with 66 or 110 type termination blocks
- 2.10.2.2.9 Raceways and cable racks (vertical and horizontal)
- 2.10.2.2.10 Flush mount and wall mount jacks
- 2.10.2.2.11 Relay racks (secured to the floor)
- 2.10.2.2.12 Patch panels on relay racks or in enclosed cabinets
- 2.10.2.2.13 Coaxial cable and connectors for RG-6, 8,11,59 and 62
- 2.10.2.2.14 Twinax cable and connectors
- 2.10.2.2.15 Equipment to station cross connects.
- 2.10.2.2.16 Telephone Terminal Devices Cross connects, terminal device placement ~~and programming~~ for the following Key Systems: Toshiba (**KD 424 & 40I**), Inter-Tel (**Premier**), TIE Systems (**616**) and Nortel Option 11.

- 2.10.2.3 Cross-connect and terminal device placement for the Nortel, SL100 System.
- 2.10.2.4 Video equipment installation to include CATV and cameras.
- 2.10.2.5 Mounting hardware and enclosures for cameras and monitors
- 2.10.2.6 Fiber and coax patch cables
- 2.10.2.7 Video transmitters and receivers

The **Documentation** provided by the Cable Contractor shall include:

- a. Run Lists for TC's (Cut Sheet).
- b. CAD diagrams and electronic file, as-builts (Visio or like)
- c. CAT-6 test results on CD
- d. CAT-3 test results on CD

The Testing of CAT-6 outlets will include testing for:

- a. Near-End Cross Talk (NEXT)
- b. Attenuation
- c. Continuity
- d. Polarity
- e. Reversals
- f. Shorts
- g. Grounds

The Testing of CAT-3 outlets will include testing for:

- a. Continuity
- b. Polarity
- c. Reversals
- d. Shorts
- e. Grounds

The Testing of Copper Riser Cables will include testing for:

- a. Continuity
- b. Polarity
- c. Reversals
- d. Shorts
- e. Grounds

The Testing of Fiber Optic Riser Cables will include testing for:

- a. Overall Loss and Attenuation
- b. Optical Time domain Reflectometer (OTDR)

2.11 Base #2 Requirements:

2.11.1 Sheriffs Office Requirements: (Prices to be provided on Base #2 Price sheet – Sheriffs Office).

- 2.11.1.1 The Sheriff's Office PBX network consists of AVAYA switch products. In all the AVAYA switch product locations the Sheriff's Office has an extensive SYSTIMAX SCS network in place. In addition to the AVAYA switch products, some substations are equipped with Tie, Inter-Tel or Toshiba key systems operating behind the AVAYA switch products.

- 2.11.1.2 The Sheriff's Office has installed approximately 800 Systimax station cables, had 2 trenching/conduit orders and cabled 7 new facilities over the past year. Approximately the same quantity can be expected annually.
- 2.11.1.3 The Sheriff's Office requires SYSTIMAX SCS level 2061, plenum cable category 5e cable for voice and generally CAT 6 for data applications that meet **622-megabyte** throughput with a 20-year **manufacturer's warranty**. The Vendor must maintain current certification as an installer of the SYSTIMAX SCS wiring solution **and an Avaya Value Added Representative (VAR)** throughout the term of this contract to keep the Systimax warranty intact and valid.
- 2.11.1.4 All cable pairs, jack numbers and descriptive locations or floor plans for new, moved or changed stations must be reported to the Sheriff's Office Telecommunications Technology Division for incorporation into the station record. All jacks will be labeled and follow the Sheriff's Office labeling process:
- a) PBX jacks: All voice and data cables will be labeled the same. For a full drop, the label will be "1V/Closet #/2V and the data will be ID/Closet #/2D Refer to diagram in attachments
 - b) FB jacks: 10-digit number
- 2.11.1.5 The Vendor will not deviate from the assigned work order unless authorized by the Sheriff's Office Telecommunications Technology Division.
- 2.11.1.6 The Vendor is responsible for securing all tools, equipment and material while in a secured or restricted area. Any loss of tools, equipment or material must be reported immediately to the facility commander and the Sheriff's Office Telecommunications Technology Division.
- 2.11.2 Typical Cable Installation Requirements
- 2.11.2.1 Station cable
- New voice (2) and data (2) cable (2 voice, 2 data total) to dual outlet. Requirements: Installation of two SCS SYSTIMAX category 5e plenum cable for voice **terminated on jack at the Work Station and 110 type block in IDF/MDF, and** ~~and~~ **Two category 6 plenum cable for data, terminated on jack at the Work Station and terminated on 110 type blocks patch panel** in IDF/MDF when required. The jack will be properly tested, marked and fully functional upon completion.
- New voice cable to single outlet. Requirements: Installation of 2 Category 5, 4 pair cables terminated in jacks at the Work Station and terminated on 110-300 blocks in IDF/MDF. This will also include installation of 110-300 blocks in the IDF/MDF when required. The jacks will be properly tested, marked and fully functional upon completion.
- New data cable to single outlet. Requirements: Installation of two CAT6, 4 pair cables terminated in jacks at the work station and terminated on CAT6 patch panels in IDF/MDF. This will also include installation of patch panels in IDF/MDF. The jacks will be properly tested, marked and fully functional upon completion.
- New data cable and retermination of existing voice cable in single outlet. Requirements: Termination of existing SCS SYSTIMAX CAT5e plenum cables in new jacks at the work station and installation of two CAT6, 4 pair cables terminated in jacks at the work station. This will also include installation of patch panels in IDF/MDF. The jacks will be properly tested,

marked and fully functional upon completion. CAT6 faceplate inserts must match CAT6 patch panels to insure impedance and manufacturer compliance standard.

2.11.2.2 Riser cable

New installation of riser copper cable (generally 100 pair) will be tested, tagged and terminated on AVAYA 110 blocks.

New installation of riser fiber optic (generally 12 strand) will be tested with an OTDR, tagged and terminated in a LIU.

2.11.2.3 Campus cable

New installation of outside plant cable (generally 200 pair) will be tested, tagged and terminated on AVAYA 110 lightning protection blocks. New installation of outside plant fiber (generally 24 strand) will be tested with an OTDR, tagged and terminated in a LIU.

All station cable will be installed per SYSTIMAX SCS level 2061 specifications (**See Sheriff's ATTACHMENT F**). Station cable installation must be quoted, on a per unit basis, for each of the three options listed as the standard cost model. We will use this standard cost model to estimate typical cable installations. Typical station cable installation will be in locations with unobstructed access from closet to workstation. Any location where the cable can be placed above a drop ceiling, with A/C ducts, pipes, air return units and the jack cut into sheet rock walls or modular furniture with power poles, will be considered to have unobstructed access.

For riser and campus cable installation the vendor must quote the price for installation, testing, tagging and termination the type of cable listed.

The vendor must also include the cost for trenching, conduit and core drilling per the attached cost evaluation form (**Price Sheet Base # 2**).

2.11.3 Other Installation Requirements

In addition to the specific cable installation requirements the vendor must also provide the following:

2.11.3.1 Outside Plant

- 2.11.3.1.1 Innerduct for Fiber Optic cable
- 2.11.3.1.2 Splicing of copper cable
- 2.11.3.1.3 Direct burial cable both copper and fiber optic
- 2.11.3.1.4 Aerial cable both copper and fiber optic
- 2.11.3.1.5 Conduit for copper and fiber installations
- 2.11.3.1.6 Trenching for buried cable
- 2.11.3.1.7 All weather splice enclosures for copper and fiber optic cables
- 2.11.3.1.8 Entrance cable protectors – lightning protection blocks

2.11.3.2 Inside Plant

- 2.11.3.2.1 Modular cords and connectors (4 wire, 6 wire & 8 wire phone cords and category 5 patch cords)
- 2.11.3.2.2 Flat (under carpet) cable
- 2.11.3.2.3 Installation of Single Mode 8.3/125 μ m Fiber Optic cable
- 2.11.3.2.4 Installation of Multi Mode 62.5/125 μ m Fiber Optic cable
- 2.11.3.2.5 Replace fiber optic mechanical splices and connectors as required

- 2.11.3.2.6 Fiber Optic ST UV cure connectors
- 2.11.3.2.7 Distribution frames with 66 or 110 type termination blocks
- 2.11.3.2.8 Raceways and cable racks (vertical and horizontal)
- 2.11.3.2.9 Flush mount and wall mount jacks
- 2.11.3.2.10 Relay racks (secured to the floor)
- 2.11.3.2.11 Patch panels on relay racks or in enclosed cabinets
- 2.11.3.2.12 Coaxial cable and connectors for RG-6, 8, 11, 59 and 62
- 2.11.3.2.13 Twinax cable and connectors
- 2.11.3.2.14 Equipment to station cross connects.

2.11.3.3 Telephone Terminal Devices

Cross connects **and**, terminal device placement ~~and programming~~ for the following Key Systems:

- a) Toshiba (**DK 424/40i**)
- b) Inter-Tel (**Premier**)
- c) TIE Systems (**616**)

Cross-connect and terminal device placement for the AVAYA System. Cross connects will only be completed by SYSTIMAX certified technicians.

2.11.3.4 Video equipment installation

Mounting hardware and enclosures for cameras and monitors

Fiber and coax patch cables

Video transmitters and receivers and cameras

The **Documentation** provided by the Cable Contractor shall include:

- a. Run Lists for TC's (Cut Sheet).
- b. CAD diagrams and electronic file, as-builts (Visio or like)
- c. CAT-6 test results on CD
- d. CAT-5 test results on CD
- e. AVAYA Systimax SCS certification warranty

The **Testing of CAT-6** outlets will include testing for:

- a. Near-End Cross Talk (NEXT)
- b. Attenuation
- c. Continuity
- d. Polarity
- e. Reversals
- f. Shorts
- g. Grounds

The Testing of CAT-5 outlets will include testing for:

- a. Continuity
- b. Polarity
- c. Reversals
- d. Shorts
- e. Grounds

The Testing of Copper Riser Cables will include testing for:

- a. Continuity
- b. Polarity
- c. Reversals

- d. Shorts
- e. Grounds

The Testing of Fiber Optic Riser Cables will include testing for:

- a. Overall Loss and Attenuation
- b. Optical Time domain Reflectometer (OTDR)

2.12 LANGUAGE FOR REQUIREMENTS CONTRACTS:

Vendors signify their understanding and agreement by signing this document, that the contract resulting from this bid will be a requirements contract. However, this contract does not guarantee that any purchases will be made.

It only indicates that if purchases are made for the services contained in this contract, that they will be purchased from the vendor awarded that item. Orders will only be placed when a using agency or department identifies a need and proper authorization and documentation have been approved.

2.13 USAGE REPORT:

The Contractor shall furnish the County a quarterly usage report delineating the acquisition activity governed by the Contract. The format of the report shall be approved by the County and shall disclose the quantity and dollar value of each contract item by individual unit.

2.14 TAX:

No tax shall be levied against labor. Bid pricing to include all labor, overhead tools and equipment used, profit, and any taxes that may be levied. It is the responsibility of the Contractor to determine any and all taxes and include the same in bid price.

2.15 DELIVERY:

It shall be the Contractor's responsibility to meet the County's delivery requirements, as called for in the Technical Specifications. Maricopa County reserves the right to obtain services on the open market in the event the Contractor fails to make delivery and any price differential will be charged against the Contractor.

2.16 SUBCONTRACTING:

The Contractor may not assign this contract or subcontract to another party for performance of the terms and conditions hereof without the written consent of the County. All correspondence authorizing subcontracting must reference the contract serial number and identify the job project.

The subcontractor's rate for the job shall not exceed that of the prime contractor's rate, as bid in the pricing section, unless the prime contractor is willing to absorb any higher rates. **Contractors shall supply a list of the following sub-contractor(s) (if used): X-ray, Core Drilling, Aerial Cabling, Trenching, Conduit, Asbestos work areas and blown fiber optics**

3.0 **SPECIAL TERMS & CONDITIONS:**

3.1 CONTRACT LENGTH:

This Invitation for Bids is for awarding a firm, fixed price purchasing contract to cover a six (6) year period.

3.2 ESCALATION:

Any request for reasonable price adjustments must be submitted ~~thirty~~ **ninety (90)** days prior to the ~~Contract~~ **first, second, third, fourth, and fifth year Contract anniversary dates.** expiration

~~date~~. Justification for the requested adjustment in cost of labor and/or materials must be supported by appropriate documentation and fall within the Producer Price Index for the commodity. Increases are subject to approval in writing by the Materials Management Department prior to any adjusted invoicing being submitted for payment.

3.3 EVALUATION CRITERIA:

The evaluation of this Bid will be based on, but not limited to, the following:

- 3.3.1 Compliance with specifications
- 3.3.2 Price
- 3.3.3 Determination of responsibility

The County reserves the right to award in whole or in part, by item or group of items, by section or geographic area, or make multiple awards, where such action serves the County's best interest.

3.4 FACILITIES:

During the course of this Agreement, the County shall provide the Contractor's personnel with adequate workspace for consultants and such other related facilities as may be required by Contractor to carry out its obligation enumerated herein.

3.5 INDEMNIFICATION AND INSURANCE:

3.5.1 **INDEMNIFICATION**

To the fullest extent permitted by law, CONTRACTOR shall defend, indemnify, and hold harmless **COUNTY**, its agents, representatives, officers, directors, officials, and employees from and against all claims, damages, losses and expenses, including, but not limited to, attorney fees, court costs, expert witness fees, and the cost of appellate proceedings, relating to, arising out of, or alleged to have resulted from the acts, errors, omissions or mistakes relating to the performance of this Contract. **CONTRACTOR'S** duty to defend, indemnify and hold harmless **COUNTY**, its agents, representatives, officers, directors, officials, and employees shall arise in connection with any claim, damage, loss or expense that is attributable to bodily injury, sickness, disease, death, or injury to, impairment, or destruction of property, including loss of use resulting therefrom, caused by any acts, errors, omissions or mistakes in the performance of this Contract including any person for whose acts, errors, omissions or mistakes **CONTRACTOR** may be legally liable.

The amount and type of insurance coverage requirements set forth herein will in no way be construed as limiting the scope of the indemnity in this paragraph.

3.5.2 **Abrogation of Arizona Revised Statutes Section 34-226:**

In the event that A.R.S. § 34-226 shall be repealed or held unconstitutional or otherwise invalid by a court of competent jurisdiction, then to the fullest extent permitted by law, **CONTRACTOR** shall defend, indemnify and hold harmless **COUNTY**, its agents, representatives, officers, directors, officials and employees from and against all claims, damages, losses and expenses (including but not limited to attorney fees, court costs, and the cost of appellate proceedings), relating to, arising out of, or resulting from **CONTRACTOR'S** work or services. **CONTRACTOR'S** duty to defend, indemnify and hold harmless, **COUNTY**, its agents, representatives, officers, directors, officials and employees shall arise in connection with any claim, damage, loss or expense that is attributable to bodily injury, sickness, disease, death, injury to, impairment or destruction of property including loss of use resulting therefrom, caused in whole or in part by any act or omission of **CONTRACTOR**, anyone **CONTRACTOR** directly or indirectly

employs or anyone for whose acts **CONTRACTOR** may be liable, regardless of whether it is caused in part by a party indemnified hereunder, including **COUNTY**.

The scope of this indemnification does not extend to the sole negligence of **COUNTY**.

3.5.3 Insurance Requirements.

CONTRACTOR, at **CONTRACTOR'S** own expense, shall purchase and maintain the herein stipulated minimum insurance from a company or companies duly licensed by the State of Arizona and possessing a current A.M. Best, Inc. rating of B++6. In lieu of State of Arizona licensing, the stipulated insurance may be purchased from a company or companies which are authorized to do business in the State of Arizona, provided that said insurance companies meet the approval of **COUNTY**. The form of any insurance policies and forms must be acceptable to **COUNTY**.

All insurance required herein shall be maintained in full force and effect until all work or service required to be performed under the terms of the Contract is satisfactorily completed and formally accepted. Failure to do so may, at the sole discretion of **COUNTY**, constitute a material breach of this Contract.

CONTRACTOR'S insurance shall be primary insurance as respects **COUNTY**, and any insurance or self-insurance maintained by **COUNTY** shall not contribute to it.

Any failure to comply with the claim reporting provisions of the insurance policies or any breach of an insurance policy warranty shall not affect coverage afforded under the insurance policies to protect **COUNTY**.

The insurance policies may provide coverage, which contains deductibles or self-insured retentions. Such deductible and/or self-insured retentions shall not be applicable with respect to the coverage provided to **COUNTY** under such policies. **CONTRACTOR** shall be solely responsible for the deductible and/or self-insured retention and **COUNTY**, at its option, may require **CONTRACTOR** to secure payment of such deductibles or self-insured retentions by a surety bond or an irrevocable and unconditional letter of credit.

COUNTY reserves the right to request and to receive, within 10 working days, certified copies of any or all of the herein required insurance policies and/or endorsements. **COUNTY** shall not be obligated, however, to review such policies and/or endorsements or to advise **CONTRACTOR** of any deficiencies in such policies and endorsements, and such receipt shall not relieve **CONTRACTOR** from, or be deemed a waiver of **COUNTY'S** right to insist on strict fulfillment of **CONTRACTOR'S** obligations under this Contract.

The insurance policies required by this Contract, except Workers' Compensation, shall name **COUNTY**, its agents, representatives, officers, directors, officials and employees as Additional Insureds.

The policies required hereunder, except Workers' Compensation, shall contain a waiver of transfer of rights of recovery (subrogation) against **COUNTY**, its agents, representatives, officers, directors, officials and employees for any claims arising out of **CONTRACTOR'S** work or service.

3.5.3.1 Commercial General Liability. **CONTRACTOR** shall maintain Commercial General Liability Insurance (CGL) and, if necessary, Commercial Umbrella Insurance with a limit of not less than \$1,000,000 for each occurrence with a \$2,000,000 Products/Completed Operations Aggregate and a \$2,000,000 General Aggregate Limit. The policy shall include coverage for bodily injury, broad form property damage, personal injury, products and completed operations and blanket contractual coverage including, but not limited to, the

liability assumed under the indemnification provisions of this Contract which coverage will be at least as broad as Insurance Service Office, Inc. Policy Form CG 00 01 10 93 or any replacements thereof. There shall be no endorsement or modification of the CGL limiting the scope of coverage for liability arising from explosion, collapse, or underground property damage.

The policy shall contain a severability of interest provision, and shall not contain a sunset provision or commutation clause, or any provision which would serve to limit third party action over claims.

The CGL and the commercial umbrella coverage, if any, additional insured endorsement shall be at least as broad as the Insurance Service Office, Inc.'s Additional Insured, Form CG 20 10 10 01, and shall include coverage for **CONTRACTOR'S** operations and products.

3.5.3.2 Automobile Liability. **CONTRACTOR** shall maintain Automobile Liability Insurance and, if necessary, Commercial Umbrella Insurance with a combined single limit for bodily injury and property damage of no less than \$1,000,000, each occurrence, with respect to **CONTRACTOR'S** vehicles (including owned, hired, non-owned), assigned to or used in the performance of this Contract. If hazardous substances, materials, or wastes are to be transported, MCS 90 endorsement shall be included and \$5,000,000 per accident limits for bodily injury and property damage shall apply.

3.5.3.3 Workers' Compensation. **CONTRACTOR** shall carry Workers' Compensation insurance to cover obligations imposed by federal and state statutes having jurisdiction of **CONTRACTOR'S** employees engaged in the performance of the work or services, as well as Employer's Liability insurance of not less than \$100,000 for each accident, \$100,000 disease for each employee, and \$500,000 disease policy limit.

CONTRACTOR waives all rights against **COUNTY** and its agents, officers, directors and employees for recovery of damages to the extent these damages are covered by the Workers' Compensation and Employer's Liability or commercial umbrella liability insurance obtained by **CONTRACTOR** pursuant to this agreement.

In case any work is subcontracted, **CONTRACTOR** will require the Subcontractor to provide Workers' Compensation and Employer's Liability insurance to at least the same extent as required of **CONTRACTOR**.

3.5.4 Certificates of Insurance.

3.5.4.1 Prior to commencing work or services under this Contract, Contractor shall furnish the County with certificates of insurance, or formal endorsements as required by the Contract in the form provided by the County, issued by Contractor's insurer(s), as evidence that policies providing the required coverage, conditions and limits required by this Contract are in full force and effect. Such certificates shall identify this contract number and title.

In the event any insurance policy(ies) required by this contract is(are) written on a "claims made" basis, coverage shall extend for two years past completion and acceptance of **CONTRACTOR'S** work or services and as evidenced by annual Certificates of Insurance.

If a policy does expire during the life of the Contract, a renewal certificate must be sent to **COUNTY** fifteen (15) days prior to the expiration date.

3.5.4.2 Cancellation and Expiration Notice.

Insurance required herein shall not be permitted to expire, be canceled, or materially changed without thirty (30) days prior written notice to the County.

3.6 REQUIREMENT OF CONTRACT BOND:

Concurrently with the submittal of the Contract, the Contractor shall furnish the Contracting Agency the following bonds, which shall become binding upon the award of the contract to the Contractor.

- (A) A Performance Bond equal to \$250,000 USD conditioned upon the faithful performance of the Contract in accordance with plans, specifications and conditions thereof. Such bond shall be solely for the protection of the Contracting Agency awarding the Contract.
- (B) A Payment Bond equal to \$250,000 USD solely for the protection of claimants supplying labor and materials to the Contractor or his Subcontractors in the prosecution of the work provided for in such Contract.

Each such bond shall include a provision allowing the prevailing party in a suit on such bond to recover as a part of his judgment such reasonable attorney's fees as may be fixed by a judge of the court.

Each bond shall be executed by a surety company or companies holding a certificate of authority to transact surety business in the State of Arizona issued by the Director of the Department of Insurance. The bonds shall not be executed by an individual surety or sureties. The bonds shall be made payable and acceptable to the Contracting Agency. The bonds shall be written or countersigned by an authorized representative of the surety who is either a resident of the State of Arizona or whose principal office is maintained in this state, as by law required, and the bonds shall have attached thereto a certified copy of the Power of Attorney of the signing official. In addition, said company or companies shall be rated "Best-A" or better as required by the Contracting Agency, as currently listed in the most recent Best Key Rating Guide, published by the A.M. Best Company.

3.7 PROCUREMENT CARD ORDERING CAPABILITY:

It is the intent of Maricopa County to utilize a procurement card that may be used by the County from time to time, to place and make payment for orders under the Contract. Contractors without this capability may be considered non-responsive and not eligible for award consideration.

3.8 INQUIRIES AND NOTICES:

All inquiries concerning information herein shall be addressed to:

MARICOPA COUNTY
DEPARTMENT OF MATERIALS MANAGEMENT
ATTN: CONTRACT ADMINISTRATION
320 W. LINCOLN ST.
PHOENIX, AZ 85003

Administrative telephone inquiries shall be addressed to:

CORRY SLAMA, SENIOR PROCUREMENT CONSULTANT, 602-506-3243
(cslama@mail.maricopa.gov)

Technical telephone inquiries shall be addressed to:

TOM CROSBY, MARICOPA COUNTY TELECOMMUNICATIONS, 602-506-5264

OR

DEBBIE OVERTON, MARICOPA COUNTY SHERIFFS OFFICE, 602-256-1029

Inquiries may be submitted by telephone but must be followed up in writing. No oral communication is binding on Maricopa County.

3.9 PRE-BID CONFERENCE:

THERE WILL BE A MANDATORY PRE-BID CONFERENCE ON DECEMBER 12, 2003; 9:00 A.M., AT THE MARICOPA COUNTY BOARD OF SUPERVISORS CONFERENCE ROOM, 301 W. JEFFERSON ST., 10TH FLOOR, PHOENIX, AZ 85003

3.10 SUBMISSION PRICE CLARITY:

For reasons of clarity all submissions of pricing (Attachment A) shall be priced in the same unit (size, volume, quantity, weight, etc.) as the bid specifications request. Submissions (bids) failing to comply with this requirement may be declared non-responsive.

3.11 INSTRUCTIONS FOR PREPARING AND SUBMITTING BIDS:

Bidders are to provide one (1) original "hard copy" (labeled) and one (1) electronic copy (on a 3.5" diskette or CD) of all Attachments, list of employees and resumes.

Attachment A – Mandatory

Attachment B – Mandatory

Attachment C – Mandatory

Attachment D & completed W-9 – Mandatory

~~Attachment E – Mandatory~~

List of employees (with their respective resumes) for Base 1 and Base 2 requirements – Mandatory

AVAYA VAR Certification/Documentation

Bidders are to identify their responses with the bid serial number, title and return address to Maricopa County, Department of Materials Management, 320 West Lincoln, Phoenix, Arizona 85003. **A corporate official who has been authorized to make such commitments must sign bids.**

**AN ELECTRONIC COPY OF ALL ATTACHMENTS MAY BE DOWNLOADED FROM:
<http://www.maricopa.gov/materials/advbd/advbd.asp>**

NETSIAN TECHNOLOGIES GROUP, 1305 W 1ST STREET, TEMPE, AZ 85281

WILLING TO ACCEPT FUTURE SOLICITATIONS VIA EMAIL: ____ YES ____ NO

WILL YOUR FIRM ACCEPT A PROCUREMENT CARD FOR INVOICE PAYMENT? ____ YES ____ NO

IF YES, MAY THE COUNTY TAKE ADVANTAGE OF DISCOUNTS OFFERED BY YOUR FIRM IN THIS BID/RFP WHEN PAYING WITH A PROCUREMENT CARD? ____ YES ____ NO

INTERNET ORDERING CAPABILITY: ____ YES ____ NO ____ % DISCOUNT

OTHER GOV'T. AGENCIES MAY USE THIS CONTRACT: ____ YES ____ NO

PRICING SHEET S076801/B0602638

1.0 PRICING:

Base #1 General Government	Price	/Unit
Station cable (Unobstructed access) Unit price labor only. Based on Average Run of 175 feet.		
New voice and new data in single outlet Attachment F-2	\$ 95.42	per unit
New data in single outlet Attachment F-1	\$ 81.11	per unit
New data cable and reterminate existing voice cable in single outlet Attachment F-3	\$ 87.20	per unit
New Voice Only to a Single Outlet	\$ 71.57	per unit

Riser Cable Unit price labor only. (Horizontal and /or Vertical Indoor Riser)

Price per 100 pair to terminate copper cable on 66 type punch block as an end-to-end solution	\$ 200.83	per unit
Price per 100 pair to terminate copper cable on 110 type punch block as an end-to-end solution	\$ 200.83	per unit
Pull 100 pair copper Riser	\$ 1.60	per ft.
Pull 200 pair copper Riser	\$ 2.01	per ft.
Pull 300 pair copper Riser	\$ 2.41	per ft.
Price per 24 strands to terminate fiber optic cable in an LIU as an end to end solution (Indoor)	\$ 390.00	per unit
Price per 24 strands to mechanical splice fiber optic cable (Indoor)	\$ 292.50	per unit
Price per 24 strands to fusion splice fiber optic cable (Indoor)	\$ 292.50	per unit
Cable Pull 24 strand fiber (Indoor)	\$ 2.14	per ft.

Campus cable Unit price labor only. (Outside Plant Cable)

Price per 100 pair to terminate copper cable on 66 type punch block as an end-to-end solution	\$ 218.15	per unit
Price per 100 pair to terminate copper cable on 110 type punch block as an end-to-end solution	\$ 218.15	per unit
Pull 100 pair campus cable	\$ 1.90	per ft.

NETSIAN TECHNOLOGIES GROUP, 1305 W 1ST STREET, TEMPE, AZ 85281

Pull 200 pair campus cable	\$	2.38	per ft.
Pull 300 pair campus cable	\$	2.85	per ft.
Pull 400 pair campus cable	\$	3.34	per ft.
Price per 24 strands to terminate fiber optic cable in an LIU as an end to end solution (Outside Plant Cable)	\$	409.34	per unit
Price per 24 strands to mechanical splice fiber optic cable (Outside Plant Cable)	\$	317.85	per unit
Price per 24 strands to fusion splice fiber optic cable (Outside Plant Cable)	\$	317.85	per unit
Cable Pull 24 strand fiber (Outside Plant Cable)	\$	2.33	per ft.
Initial placement of Blown Fiber Tubing	\$	3.02	per ft.
Placement of Blown Fiber in existing tubing	\$	3.44	per ft.
Other services	\$		per hour
Price for core drilling a 4 inch hole	\$	38.22	per inch
Core Drilling X-Ray	\$	89.28	per x-ray
Price per ft. for installation of buried 4 inch conduit (include cost of all materials and trenching)			
Soft Trench, unimproved dirt minimum of 18" deep.	\$	13.00	per ft.
Hard Trench, hard surface up to 4 inch concrete or asphalt removal and replacement minimum of 18" deep.	\$	25.00	per ft.
Price per ft. for each additional buried 4 inch conduit (PVC Schedule 40) same trench (include materials)	\$	3.33	per ft.
Price per ft. for 4 inch conduit installation suspended (EMT) form ceiling (include cost of all materials)	\$	7.73	per ft.
Price per ft. for 4 inch conduit installation suspended (RIGID) form ceiling (include cost of all materials)	\$	10.29	per ft.
Hourly rate for cross connects, terminal device placement and programming for Key Systems and misc. services as required.	\$	29.75	hr
Hourly rate for cross connects and terminal device placement for SL100 System	\$	24.45	hr
Hourly Rate for Technician (T&M)	\$	29.75	hr
Hourly rate to pull and terminate station cable in areas with obstructed access Non-Tech (T&M)	\$	24.45	hr

NETSIAN TECHNOLOGIES GROUP, 1305 W 1ST STREET, TEMPE, AZ 85281**Base #2
Sheriff's Office****(ALL AVAYA SYSTIMAX SCS)****Price /Unit**

Station cable (Unobstructed access) terminated, cross connected, tested and tagged – ready to go (Based on average run of 175 feet. See section 11.3.1 for definitions) Includes all parts, materials and labor except patch panels.

Two new voice and two new data in dual outlets.	\$	420.15	per unit
New voice in single outlet (two).	\$	242.82	per unit
New data in single outlet (two).	\$	325.66	per unit
New data cable and reterminate existing voice cable in single outlets.	\$	55.98	per unit
AVAYA 48 port patch panel, 110 block	\$	623.88	per unit
AVAYA 300 par, 110 block	\$	122.89	per unit
Riser cable terminated, cross connected, tested and tagged (Horizontal/Vertical Indoor)			

Price per 100 pair to terminate copper cable on AVAYA 110 punch block as an end-to-end solution	\$	435.71	per unit
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Cable Pull 100 pair copper includes labor and material as an end-to-end solution	\$	5.09	per ft.
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Price per 12 strands to terminate fiber optic cable in an LIU as an end-to-end solution	\$	238.30	per unit
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Price per 24 strands to terminate fiber optic cable in an LIU as an end-to-end solution	\$	482.28	per unit
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Price per 12 strands to splice fiber optic cable using mechanical splice.	\$	339.28	per unit
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Price per 24 strands to splice fiber optic cable using mechanical splice.	\$	678.57	per unit
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Price per 12 strands to splice fiber optic cable using fusion splice.	\$	339.28	per unit
---	----	--------	----------

Price per 24 strands to splice fiber optic cable using fusion splice.	\$	678.57	per unit
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Cable Pull 12 strand fiber includes labor and material	\$	5.84	per ft.
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Cable Pull 24 strand fiber includes labor and material	\$	7.65	per ft.
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Campus cable terminated, cross connected, tested and tagged **(Outside Plant Cable)**

Price per 100 pair to terminate copper cable on AVAYA 110 punch block as an end-to-end solution	\$	435.71	per unit
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Price per 100 pair to terminate copper cable on 110 type punch block	\$	435.71	per unit
--	----	--------	----------

Cable Pull 100 pair copper includes labor and material	\$	5.09	per ft.
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Price per 12 strands to terminate fiber optic cable in an LIU as an end-to-end solution	\$	241.14	per unit
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Price per 24 strands to terminate fiber optic cable in an LIU as an end-to-end solution	\$	482.28	per unit
--	----	--------	----------

Price per 12 strands to splice fiber optic cable using mechanical splice.	\$	339.28	per unit
---	----	--------	----------

Price per 24 strands to splice fiber optic cable using mechanical splice.	\$	678.57	per unit
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NETSIAN TECHNOLOGIES GROUP, 1305 W 1ST STREET, TEMPE, AZ 85281

Price per 12 strands to splice fiber optic cable using fusion splice.	\$	339.28	per unit
Price per 24 strands to splice fiber optic cable using fusion splice.	\$	678.57	per unit
Cable Pull 12 strand fiber	\$	4.55	per ft.
Cable Pull 24 strand fiber	\$	7.37	per ft.
Other Services	\$		Hr
Hourly rate to pull and terminate station cable in areas with obstructed access Non-Tech (T&M)	\$	24.45	hr
Hourly Rate for Technician (T&M)	\$	29.75	hr
Price for core drilling a 4 inch hole	\$	38.22	per inch
Core Drilling X-Ray	\$	89.28	per x-ray
Price per ft. for installation of buried 4 inch conduit (include cost of all materials and trenching)			
Soft Trench, unimproved dirt minimum of 18" deep.	\$	9.46	per ft.
Hard Trench, hard surface up to 4 inch concrete or asphalt removal and replacement minimum of 18" deep.	\$	18.75	per ft.
Price per ft. for each additional buried 4 inch conduit (PVC Schedule 40) same trench (include materials)	\$	3.33	per ft.
Price per ft. for 4 inch conduit installation suspended (EMT) form ceiling (include cost of all materials)	\$	7.73	per ft.
	\$	-	
Price per ft. for 4 inch conduit installation suspended (RIGID) form ceiling (include cost of all materials)	\$	10.29	per ft.
Hourly rate for cross connects, terminal device placement and programming for Key Systems, and misc, services. Ie. Inventory transfers, 24 gauge wire pull for paging speakers.	\$	29.75	hr
Hourly rate for cross connects and terminal device placement for AVAYA System	\$	24.45	hr
Hourly rate to pull and terminate station cable in areas with obstructed access	\$	29.75	hr
Patch cable 6'	\$	7.51	ea
Patch cable 10'	\$	9.82	ea

For Materials only: Cost plus _____% **9.50%**

NETSIAN TECHNOLOGIES GROUP, 1305 W 1ST STREET, TEMPE, AZ 85281

Terms: 2% 10 days Net 30

Vendor Number: **W000004168 X**

Telephone Number: ~~480/505-6877~~ **480-505-6600**

Fax Number: ~~480/505-6977~~ **480-505-6700**

Contact Person: ~~David Segal~~ **Amy Markham**

E-mail Address: david.segal@netsian.net info@wilsonelectric.net

Company Web Site: www.netsian.com

Certificates of Insurance Required

Performance Bond Required \$250,000.00

Contract Period: To cover the period ending **March 31, 2010.**